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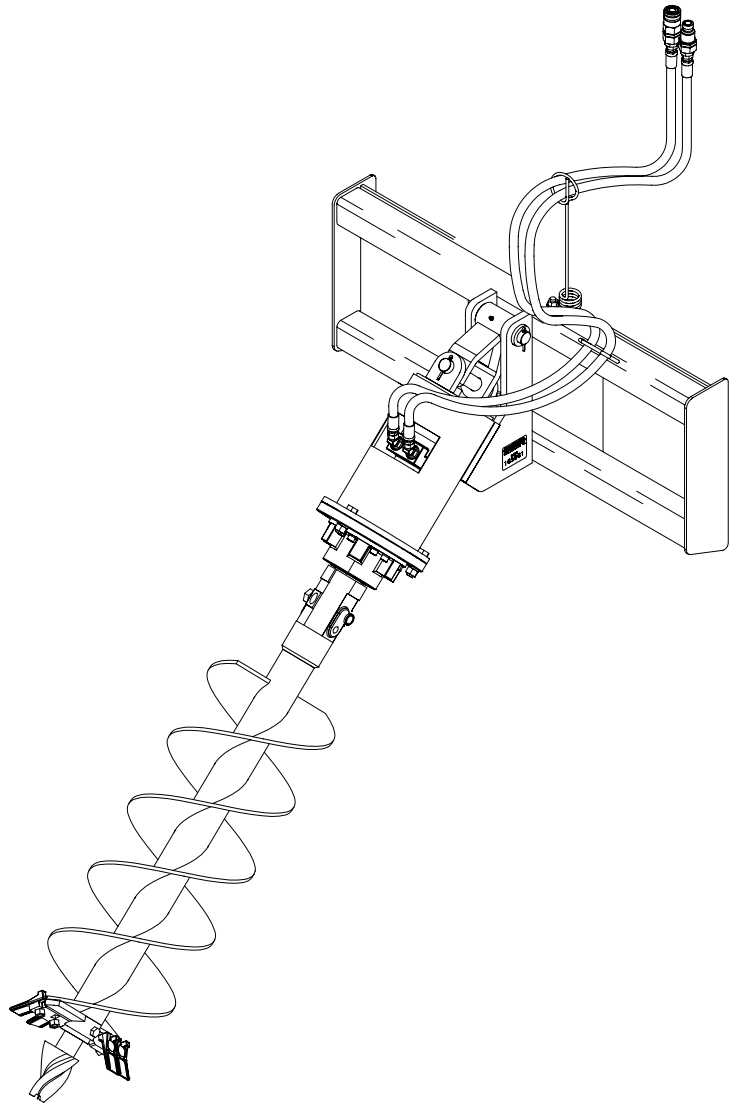
Skid Steer/Tractor Post Hole Digger

Model SA35



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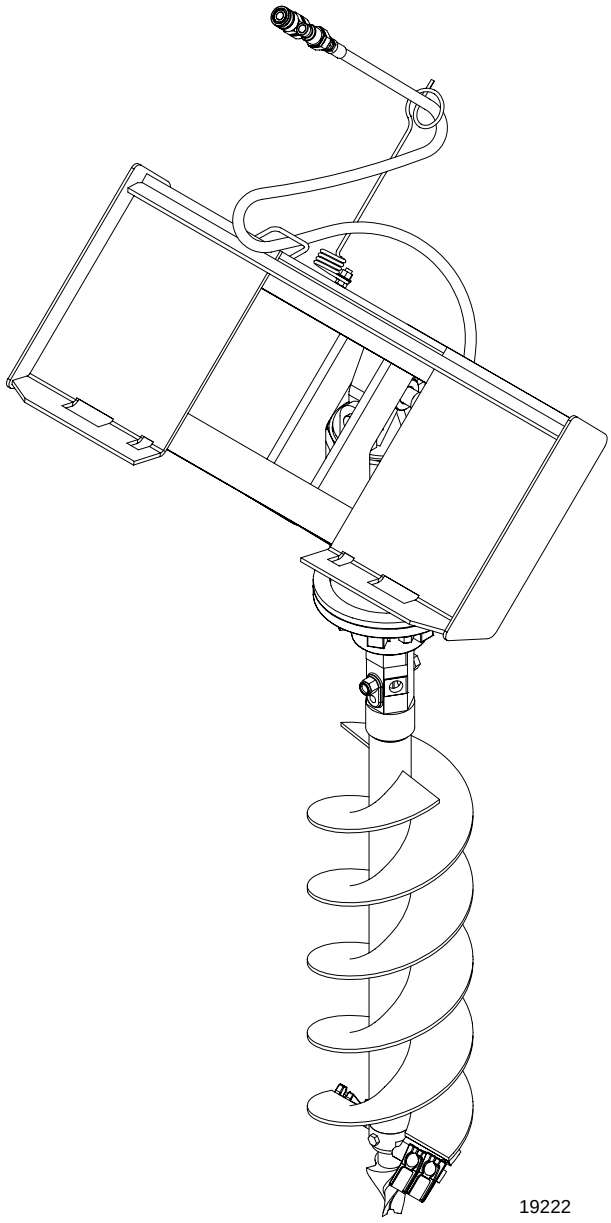

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317-093M

Operator's Manual

Land Pride

Read the Operator's manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

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Cover photo may show optional equipment not supplied with standard unit.

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Printed in the United States of America.

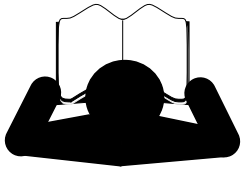
These are common practices that may or may not be applicable to the products described in this manual.

Safety at All Times

Thoroughly read and understand the instructions given in this manual before operation. Refer to the "Safety Label" section, read all instructions noted on them.

Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- ▲ Operator should be familiar with all functions of the unit.
- ▲ Make sure all guards and shields are in place and secured before operating implement.
- ▲ Never operate loader's controls from the ground. Always sit in the operator's seat when activating the controls.
- ▲ Keep bystanders away from loader and work area. Do not raise the lift arms and attachment over another worker.
- ▲ Never carry riders or use loader as a personlift.
- ▲ Travel up and down slopes, not across them.
- ▲ Do not leave equipment unattended with engine running.
- ▲ Dismounting from a moving Skid Steer could cause serious injury or death.
- ▲ Do not allow anyone to stand between Skid Steer loader and implement while backing up to the implement.
- ▲ Keep hands and feet on controls or footrests. Never lean out the front of the cab with the engine running.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ Wear snug fitting clothing to avoid entanglement with moving parts.
- ▲ Watch out for wires, trees, etc., when raising implement. Make sure all persons are clear of working area.



Look For The Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Be Aware of Signal Words

A Signal word designates a degree or level of hazard seriousness. The signal words are:

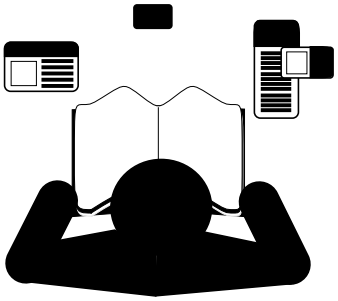
DANGER
Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

WARNING
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION
Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

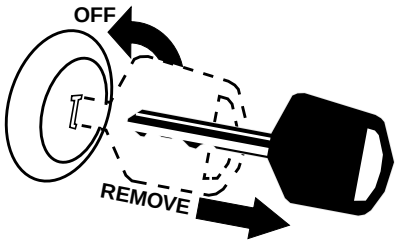
For Your Protection

- ▲ Thoroughly read and understand the "Safety Label" section, read all instructions noted on them.



Shutdown and Storage

- ▲ Lower machine to ground, put Skid Steer/Tractor in park, turn off engine, and remove key to prevent unauthorized starting.
- ▲ Detach and store implements in a area where children normally do not play. Secure implement by using blocks and supports.
- ▲ Use steps, grab-handles and skid-resistant surfaces when getting on or off the Skid Steer/ Tractor.



These are common practices that may or may not be applicable to the products described in this manual.

Operating Skid Steer and Attachment

- ▲ The operator must not use drugs or alcohol that can change the alertness or coordination of that person while operating the equipment. The operator should, if he is taking over-the-counter drugs, seek medical advise on whether he can safely operate the equipment.
- ▲ Start Skid Steer with steering levers and hydraulic controls in neutral. **Keep bystanders away.**
- ▲ Always contact your local utility companies (electrical, telephone, gas, water, sewer and others) before digging so that they may mark the location of any under ground services in the area. Be sure to ask how close you can work to the marks they positioned.
- ▲ Avoid contact with any over head utility lines or electrically charged conductors.

Getting On and Off Safely

Before leaving the operator's seat:

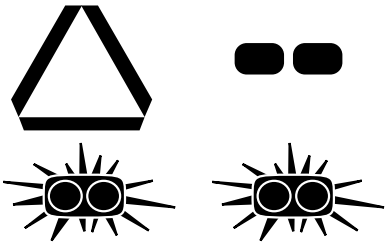
- ▲ Lower lift arms and put attachment flat on the ground.
- ▲ Stop the engine.
- ▲ Engage the parking brake.
- ▲ Raise seat bar and move controls until both lock.
- ▲ Remove switch key to prevent unauthorized starting.
- ▲ Use steps, grab-handles and skid-resistant surfaces when getting on or off the Skid Steer.

Practice Safe Maintenance

- ▲ Understand procedure before doing work. Use proper tools and equipment, refer to Operator's Manual for additional information.
- ▲ Work in a clean dry area.
- ▲ Lower implement to the ground, put Skid Steer in park, turn off engine, and remove key before performing maintenance.
- ▲ Allow implement to cool completely.
- ▲ Disconnect battery ground cable (-) before servicing or adjusting electrical systems or before welding on implement.
- ▲ Do not grease or oil implement while it is in operation.
- ▲ Inspect all parts. Make sure parts are in good condition & installed properly.
- ▲ Remove buildup of grease, oil or debris.
- ▲ Remove all tools and unused parts from implement before operation.

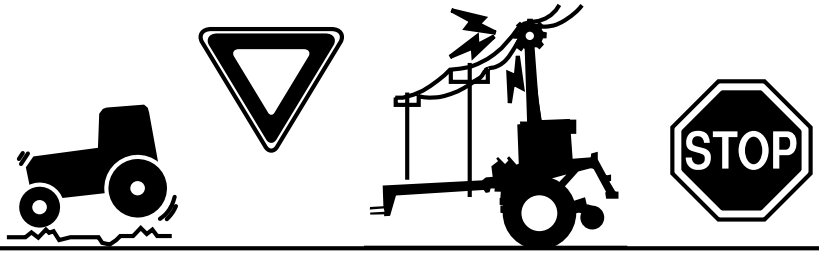
Use Safety Lights and Devices

- ▲ Slow moving tractors, self-propelled equipment, and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
- ▲ Flashing warning lights and turn signals are recommended whenever driving on public roads.



Transport Machinery Safely

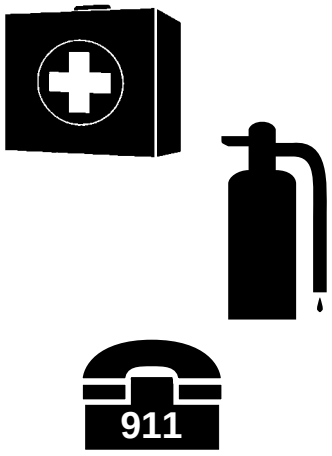
- ▲ Comply with state and local laws.
- ▲ Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrain require a slower speed.
- ▲ Always drive up/down the ramp with heavy end uphill. Engage parking brake when stopped on an incline.
- ▲ Secure Skid Steer and attachments using tie downs and chains. Use towing vehicle and trailer of adequate capacity.
- ▲ Sudden braking can cause a towed load to swerve and upset. Reduce speed if towed load is not equipped with brakes.
- ▲ Avoid contact with any over head utility lines or electrically charged conductors.
- ▲ **IMPORTANT:** Do not tow a load that is more than double the weight of vehicle pulling the tow load.



These are common practices that may or may not be applicable to the products described in this manual.

Prepare for Emergencies

- ▲ Be prepared if a fire starts.
- ▲ Keep a first aid kit and fire extinguisher handy.
- ▲ Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.

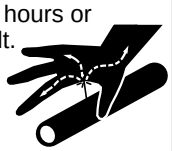


Wear Protective Equipment

- ▲ Protective clothing and equipment should be worn.
- ▲ Wear clothing and equipment appropriate for the job. Avoid loose fitting clothing.
- ▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- ▲ Operating equipment safely requires the full attention of the operator. Avoid wearing radio headphones while operating machinery.

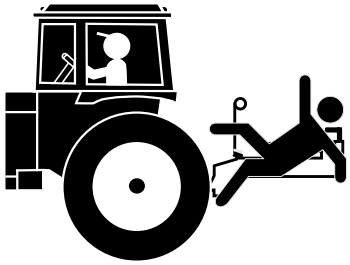
Avoid High Pressure Fluids Hazard

- ▲ Escaping fluid under pressure can penetrate the skin causing serious injury.
- ▲ Avoid the hazard by relieving pressure before disconnecting hydraulic lines or performing work on the system.
- ▲ Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be treated within a few hours or gangrene may result.



Keep Riders Off Machinery

- ▲ Riders obstruct the operator's view, they could be struck by foreign objects or thrown from the machine.
- ▲ Never allow children to operate equipment.



Tire Safety

- ▲ Tire changing can be dangerous and should be preformed by trained personnel using the correct tools and equipment.
- ▲ When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.
- ▲ When removing and installing wheels, use wheel handling equipment adequate for the weight involved.

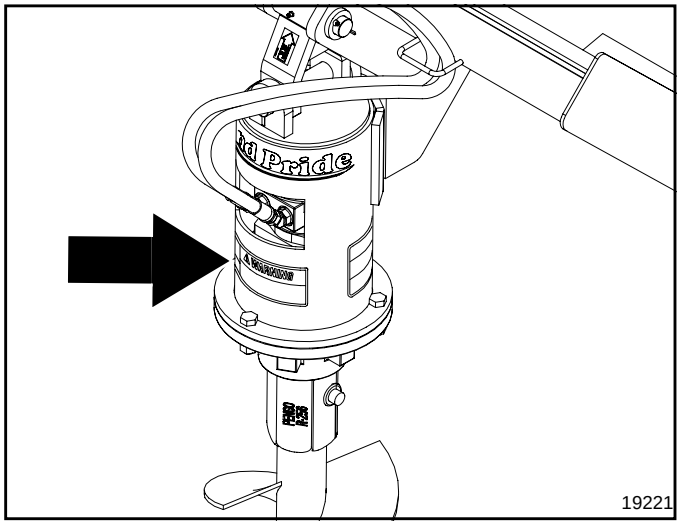
Handle Chemicals Properly

- ▲ Protective clothing should be worn.
- ▲ Handle all chemicals with care.
- ▲ Follow instructions on container label.
- ▲ Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil, and property.
- ▲ Inhaling smoke from any type of chemical fire is a serious health hazard.
- ▲ Store or dispose of unused chemicals as specified by the chemical manufacturer.

Safety Labels

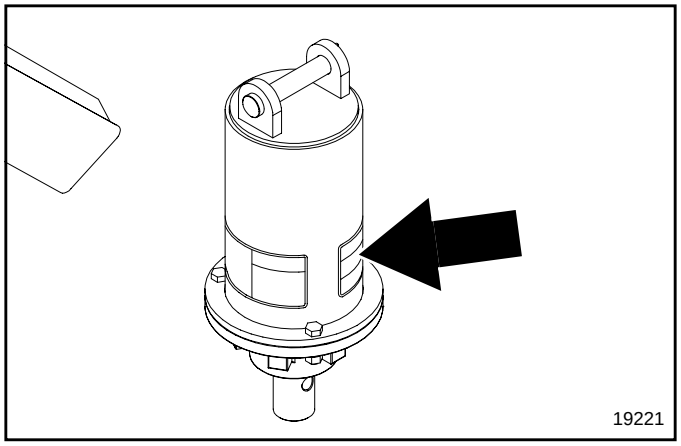
Your Post Hole Digger comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

1. *Keep all safety labels clean and legible.*
2. *Replace all damaged or missing labels. To order new labels go to your nearest Land Pride dealer or visit our dealer locator at landpride.com.*
3. *Some new equipment installed during repair requires safety labels to be affixed to the replaced component as specified by Land Pride. When ordering new components make sure the correct safety labels are included in the request.*
4. *Refer to this section for proper label placement. To install new labels:*
   a. *Clean the area the label is to be placed.*
   b. *Spray soapy water on the surface where the label is to be placed.*
   c. *Peel backing from label. Press firmly onto the surface.*
   d. *Squeeze out air bubbles with the edge of a credit card.*



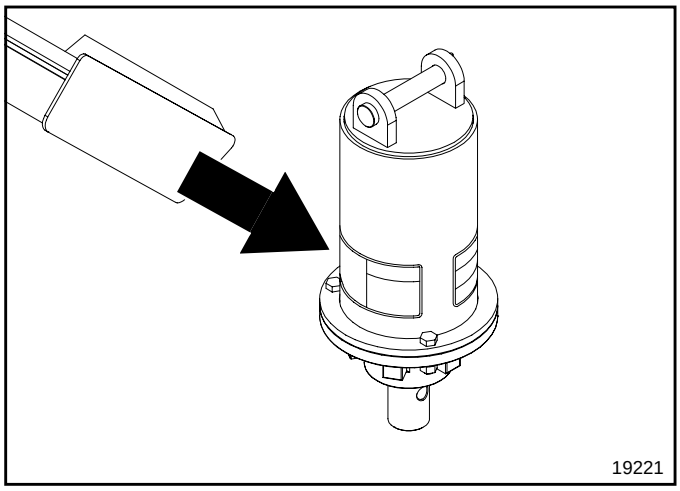
WARNING
HIGH PRESSURE FLUID HAZARD
To prevent serious injury or death:
• Relieve pressure on system before repairing or adjusting or disconnecting.
• Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
• Keep all components in good repair.
838-094C

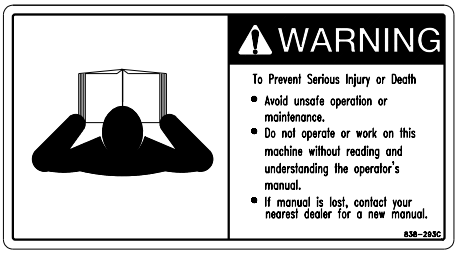
838-094C
Warning: High Pressure



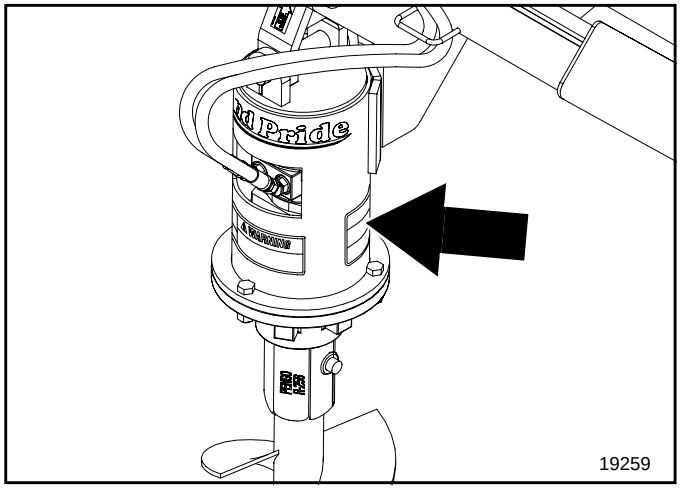
DANGER
ELECTROCUTION HAZARD
UNDERGROUND WIRES
To prevent serious injury or death:
• Do not dig where there are underground wires.
• Check with local authorities before digging.
838-292C

838-292C
Warning: Electrocute Hazard




WARNING
To Prevent Serious Injury or Death
• Avoid unsafe operation or maintenance.
• Do not operate or work on this machine without reading and understanding the operator's manual.
• If manual is lost, contact your nearest dealer for a new manual.
838-293C

838-293C
Warning: Read Manual



DANGER
ROTATING AUGER HAZARD
To prevent serious injury or death from rotating auger:
• Stay away from auger when it is turning.
• Keep others away.
• Lower auger to the ground, place all controls in neutral, stop engine, set park brake, remove ignition key and wait for all moving parts to stop before servicing, repairing, adjusting or unplugging.
838-294C

838-294C
Danger: Rotating Auger

Land Pride welcomes you to the growing family of new product owners.

This Post Hole Digger has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance and safe operating practices will help you get years of satisfactory use from the machine.

Application

Land Pride offers a complete line of Post Hole Diggers designed to meet a wide range of customer needs and applications. The hydraulically driven SA35 Series Post Hole Diggers meet the needs of most owners and operator's having Skid Steers or Tractors with 10 to 25 gallons per minute hydraulic flow capacity at 1500 to 3000 psi and if attaching to a tractor, have a skid steer adapter hitch on the tractor loader.

Depending on your specific needs, our Pengo brand augers are offered in single, semi-double, and double flighting configuration. These augers come in 48" length with a choice of 9", 12", 15", 18", 24", 30" & 36" flighting and with a 3-point cast steel tip for quick piloting and faster hole starting. The ability to reverse the auger greatly reduces the strain on the auger and equipment when extracting the digger from the ground.

The SA35 Series meets the industrial duty applications of nurseries, landscapers, contractors, construction companies, farmers, ranchers, and municipalities.

See "**Section 5: Specifications & Capacities**" on page 21 and "**Section 6: Features & Benefits**" on page 22 for additional information and performance enhancing options.

Using This Manual

- This Operator's Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
- The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.
- To order a new Operator's or Parts Manual contact your authorized dealer. Manuals can also be downloaded, free-of-charge from our website at www.landpride.com.

Terminology

"Right" or "Left" as used in this manual is determined by facing the direction the machine will operate while in use unless otherwise stated.

Definitions

IMPORTANT: A special point of information related to its preceding topic. Land Pride's intention is that this information should be read and noted before continuing.

NOTE: A special point of information that the operator must be aware of before continuing.

Owner Assistance

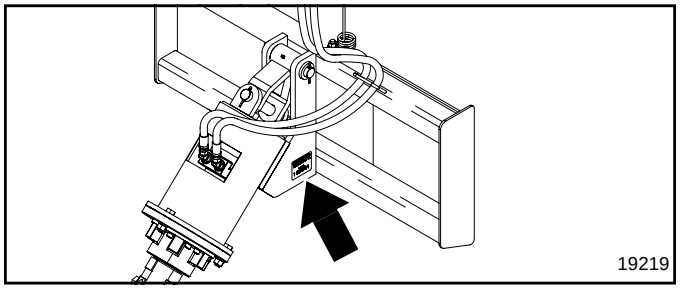
The Warranty Registration card should be filled out by the dealer at the time of purchase. This information is necessary to provide you with quality customer service.

If customer service or repair parts are required contact a Land Pride dealer. A dealer has trained personnel, repair parts and equipment needed to service the Post Hole Digger.

The parts on your SA35 Post Hole Digger have been specially designed and should only be replaced with genuine Land Pride parts. Therefore, should your Skid Steer Auger require replacement parts go to your Land Pride Dealer.

Serial Number Plate

For prompt service always use the serial number and model number when ordering parts from your Land Pride dealer. Be sure to include your serial and model numbers in correspondence also. Refer to Figure 1 for the location of your serial number plate.



Serial Number Plate Location
Figure 1

Further Assistance

Your dealer wants you to be satisfied with your new Post Hole Digger. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

1. Discuss the matter with your dealership service manager making sure he is aware of any problems you may have and that he has had the opportunity to assist you.
2. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the problem and request assistance.
3. For further assistance write to:

Land Pride Service Department
1525 East North Street
P.O. Box 5060
Salina, Ks. 67402-5060

E-mail address
lpservicedept@landpride.com

Skid Steer/Tractor Requirements

The Post Hole Digger is designed to attach to Skid Steer Loaders and to Tractors with a Skid Steer adapter hitch on its loader with the following minimum requirements:

SAE Lift Capacity . . . . . 1200 lbs.
Hydraulic Pressure Rating . . . . . 1,500 - 3,000 PSI.
Hydraulic Flow Rate . . . . . .10 to 25 GPM.
Hydraulic Connections . . . . . 2 - Hydraulic Outlets

Torque Requirements

Refer to “Torque Values Chart” on page 19 to determine correct torque values for common bolt sizes when tightening hardware.

Hydraulic Gearbox Mount Assembly

1. Position hydraulic gearbox housing (#1) with ports facing forward as shown.
2. Attach gearbox housing to clevis (#2) with 1 1/4" x 6 7/8" clevis pin (#3) as shown.
3. Secure clevis pin with 3/16" x 2" cotter pin (#4).

Hydraulic Hose Assembly

Refer to Figure 1-5:

1. Install 45 degree elbows (#1) into motor ports as shown and tighten.
2. Screw 96" long hydraulic hoses (#2A & #2B) into fittings (#1) and tighten.
3. Thread adapter fittings (#3) to the other end of the hydraulic hoses and tighten.

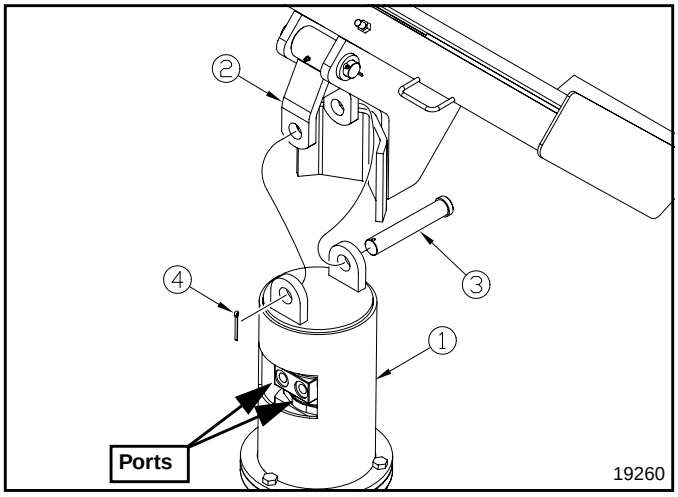
NOTE: The preferred hose connections to the equipment is to be able to lock hydraulic operation in continues flow while digging the hole. Line (#2B) is the pressure line while digging (auger turning clockwise). Therefore it is best to attach line (#2B) to the Skid Steer or Tractor line that is under pressure when controls are locked for continues operation.

4. Consult your Skid Steer or Tractor Operator’s Manual to determine which line on the Skid Steer is under pressure when locked for continues operation and then select the coupling (#4 or #5) to attach to line 2B that will mate with the Skid Steer coupling.
5. Attach the other coupling to line (#2A)
6. Tighten couplings (#4 & #5) to adapters (#3).

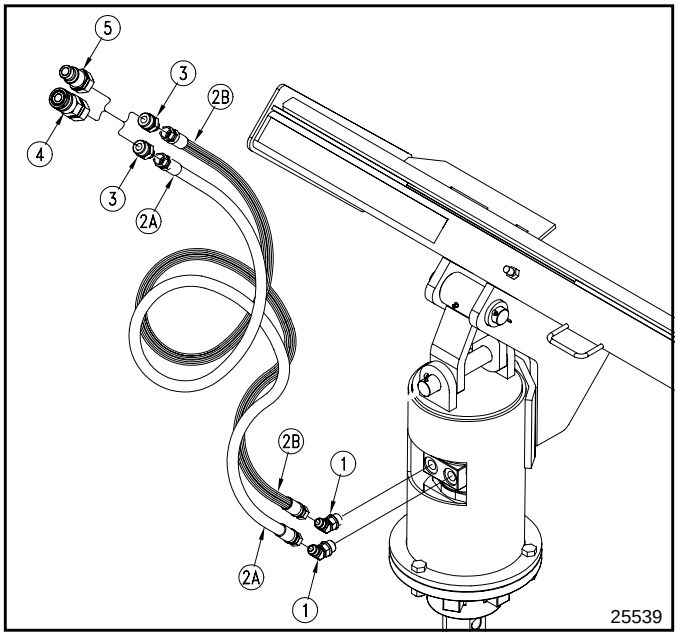
Spring Hose Loop Assembly

Refer to Figure 1-3:

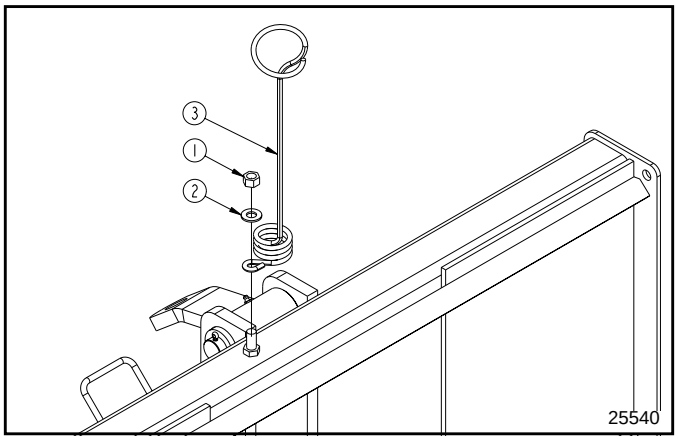
1. Attach spring hose loop (#3) to the stud on the auger hitch plate with flat washer (#2) and 1/2"-13 hex locknut (#1).
2. Torque nut to proper torque. Refer to “Torque Values Chart” on page 19**.**



Gearbox housing Assembly
Figure 1-1



Hose Assembly
Figure 1-2



Spring Hose Loop Assembly
Figure 1-3

Skid Steer & Tractor Hook-Up

Refer to Figure 1-4:

CAUTION

Make sure Skid Steer or Tractor hitch plate is properly attached to the auger hitch plate. It must be secured under the top angle bar and lock handles must be locked down with pins extending fully through the bottom slots. An improperly attached hitch plate can work loose and be thrown towards the operator.

CAUTION

Do not stand between the Skid Steer loader and implement during hookup.

1. Make sure hydraulic hoses do not interfere with hitch hook-up.
2. Drive machine slowly to the Post Hole Digger making sure its front hitch plate is parallel with the Post Hole Digger hitch plate.
3. Rotate top of machine tilt arms slightly forward.
4. Place top of hitch plate under the top angled bar on the Post Hole Digger hitch plate.
5. Slowly lift Skid Steer/Tractor hitch until the top angle bar and Skid Steer hitch have come together.
6. Push lock handles of the Skid Steer/Tractor hitch down so that the pins go through the bottom slots of the Post Hole Digger hitch plate and handles lock down.

Auger Assembly

Refer to Figure 1-5:

1. Position mounting holes in auger tube (#3) in line with hole in gearbox output shaft (#4).
2. Slide auger tube (#3) over gearbox output shaft (#4) and install 7/8"-9 x 5" GR5 hex head cap screw (#1) and hex nylock nut (#2).
3. Tighten hardware to proper torque.

Hose Hook-up

Refer to Figure 1-5:

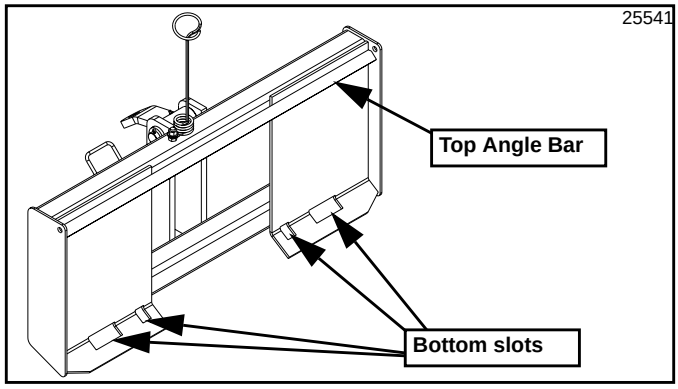
DANGER

Hydraulic fluid under pressure can penetrate skin. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Use a piece of cardboard or wood rather than hands when searching for hydraulic leaks. If hydraulic fluid is injected into the skin, it must be treated by a doctor within a few hours or gangrene may result.

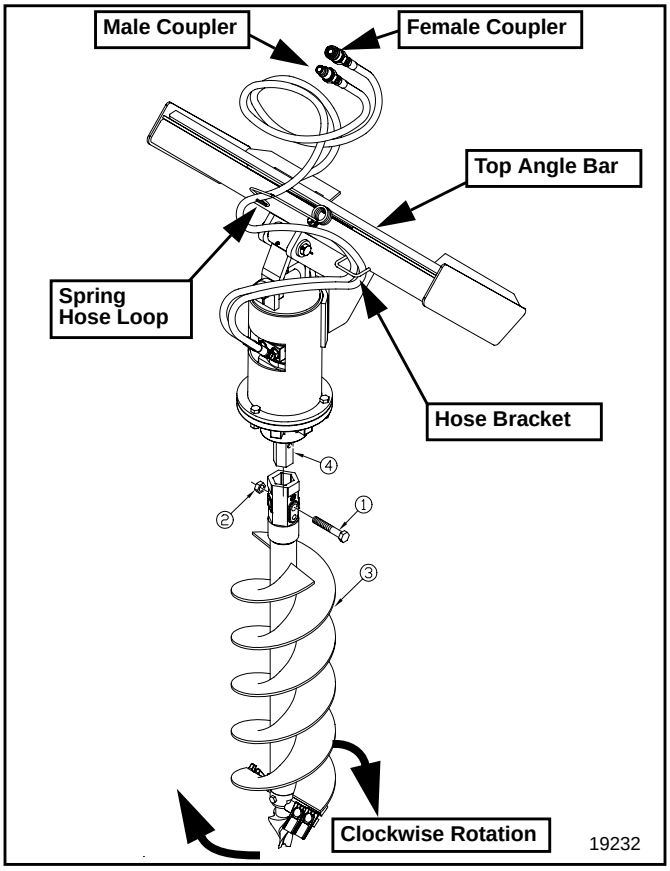
DANGER

Be careful not to twist hoses while connecting them to the Skid Steer couplings. A hose that becomes pinched or kinked while operating can burt and leak hydraulic fluid.

1. Rout hydraulic hoses through spring hose loop and hose bracket in the most coinvent path to access your Skid Steer/Tractor couplings. Path shown may not be the most coinvent.
2. Connect male and female couplers to the Skid Steer/Tractor high pressure outlets.
3. Operate Skid Steer/Tractor to check auger rotation. The auger should rotate clockwise when looking down from above. If auger rotates counterclockwise, switch male and female couplers on the hydraulic hoses and then reconnect hoses to the outlets.
4. Also see Hydraulic Hook-up instructions in your Skid Steer/Tractor Operator's Manual.



Auger Hitch Plate
Figure 1-4



Auger Screw Assembly
Figure 1-5

Unhooking Post Hole Digger

Refer to Figure 1-4 & Figure 1-5 on page 8:

1. Rotate top of tilt arms back and lower Skid Steer/ Tractor lift arms down until the auger tip touches the ground.
2. At this point, slowly back Skid Steer/Tractor up until hitch plate frame is on the ground.
3. Stop engine, engage parking brake, raise seat bar, move controls until both are locked and remove key to prevent unauthorized starting. Use steps, grab-handles and skid-resistant surfaces when getting on or off the loader.
4. Disconnect hydraulic hoses and release locking levers or pins. It may be necessary to release hydraulic pressure in the lines before hoses will disconnect from the loader.
5. Restart Skid Steer/Tractor and slowly rotate tilt arms back and lower loader arms down until auger tip and auger hitch plate are both resting on the ground.
6. Continue to lower the loader arms until the Skid Steer/Tractor hitch clears the auger hitch plate top angle bar.
7. Back away from auger hitch plate and then raise Skid Steer/Tractor loader arms up.

Operator's Responsibilities

Hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training involved in the operation, transport, maintenance and storage of the Skid Steer Auger. Therefore, it is absolutely essential that no one operates the auger screw without first having read, fully understood and become totally familiar with the Operator's Manual. Make sure the operator has completed the Operating Checklist below.

Operating Checklist

✔	Check	Page No.
	Read and follow all Safety Rules carefully. Refer to "Important Safety Information".	Page 1
	Make sure all guards and shields are in place. Refer to "Important Safety Information".	Page 1
	Read and follow Hook-up & preparation instructions. Refer to "Section 1: Assembly & Set-up".	Page 7
	Read and follow all operating procedures. Refer to "Section 2: Operating Procedures".	Page 10
	Read and follow all Maintenance Instructions. Refer to "Section 4: Maintenance & Lubrication".	Page 14
	Make sure their are no hydraulic leaks on the unit. Refer to "Avoid High Pressure Fluids Hazard".	Page 3
	Read and follow all Lubrication Instructions. Refer to "Lubrication Points".	Page 15
	Make sure all gearboxes are properly lubricated. Refer to Gearbox lubrication.	Page 15
	Check auger screw initially and periodically for loose bolts and pins. Refer to "Torque Values Chart".	Page 19

DANGER

Keep all persons away from the auger while raising, lowering, tilting or rotating the unit. Making contact with the equipment can pinch and/or entangle one in the unit causing serious injury or death.

DANGER

Do not put anything or anyone on the auger for the purpose of adding weight to the unit. Objects and people can be thrown or become entangled in the unit.

DANGER

Keep all shields in place and secure when operating. Becoming entangled in the equipment can cause serious injury or death.

WARNING

Do not manually guide the auger to position its point on the ground while Auger is in operation.

WARNING

Always travel with auger lowered to reduce the chances of tip over due to high center of gravity. Tether auger with a chain if necessary to stop it from swinging while transporting.

WARNING

Always travel with adequate clearance between the ground and auger. Hitting an object while traveling forward can damage the auger, machine and injure the operator.

WARNING

It is the operator's responsibility not to allow anyone near the auger during its operation. A safe minimum distance from the auger of 20 feet should be maintained by all persons.

WARNING

Avoid tipping the Skid Steer/Tractor over. Never operate on hill sides or sloping ground that will tip the machine over. Make sure the machine is always on firm stable ground.

WARNING

Do not install a longer shearbolt. A protruding fastener is more likely to grab loose clothing and may cause serious injury or death.

CAUTION

Before digging contact your local utility companies (electrical, telephone, gas, water, sewer and others) before digging so that they may mark the location of any under ground services in the area. Be sure to ask how close you can work to the marks they positioned. Avoid contact with any over head utility lines or electrically charged conductors.

CAUTION

All hydraulic hoses, fittings & gauges must have an operating pressure rating that is at least 25% higher than the pressure rating of your hydraulic system.

CAUTION

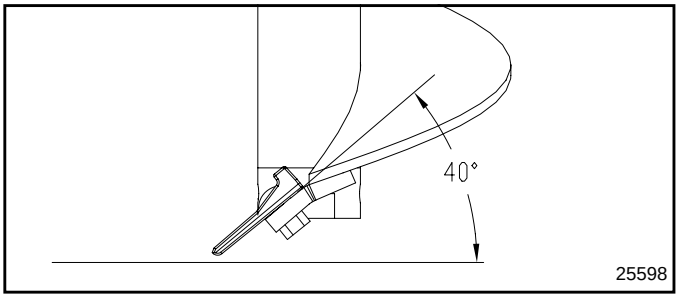
Never adjust the relief valve for a pressure rating higher than what is recommended by the Skid Steer/Tractor manufacture.

- Do not allow anyone to operate this implement who has not been properly trained in its safe operation.
- Do not let children operate the Post Hole Digger.
- Never work under the unit without properly blocking it up.
- Never allow passengers on the Skid Steer/Tractor or carry a rider on the Post Hole Digger.
- Use Post Hole Digger for its intended purposes only. Do not use it for pulling, pushing or lifting objects such as fence post and stumps.
- Before digging, clear area of all objects and debris that could become entangled in the auger flighting.
- Make sure all safety labels are in their proper location and in good condition before operation.
- Keep auger properly attached to the loader when in use.

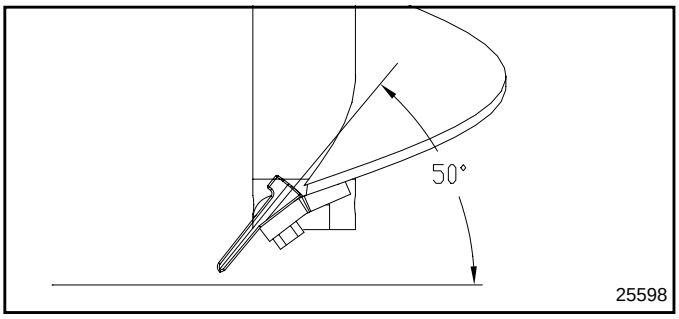
Dual-Angle Teeth

Refer to Figure 2-1 & Figure 2-2:

The Auger is shipped with teeth mounted at 40 degrees (see Figure 2-1). If you are experiencing difficulty in penetrating the soil, they can be turned over and mounted at 50 degrees (see Figure 2-2) for a more aggressive bite. Be sure to tighten all mounting hardware to the proper torque when securing teeth to the Auger. See “Torque Values Chart” on page 19 for torque ratings.



Auger Teeth Mounted at 40 Degrees
Figure 2-1



Auger Teeth Mounted at 50 Degrees
Figure 2-2

Operating Instructions

1. Roll tilt arms to carry the auger low to the ground while traveling between drilling positions.
2. Position Skid Steer/Tractor on the upside of the hill when drilling a hole. This will greatly improve its balance and down force.
3. Experiment with auger speeds before digging. Increase Skid Steer/Tractor engine speed to increase auger speed and decrease engine speed to reduce auger speed. Run at higher auger speeds when digging in soft and/or sandy soils and at lower auger speeds when digging in hard, rocky or frozen soils. Normal auger speed is 85 to 100 rpm. Never exceed 110 rpm or the equipment can become damaged.

IMPORTANT: Operate one loader function at a time. Operating two or more functions at a time (loader arms, tilt arms, engine speed and loader positioning) can lead to damaged equipment.

4. Maker sure auger rotation is stopped and then lower auger point to the ground.
5. With engine running at a slow speed, start auger turning clockwise. Increase engine speed to desired digging speed.

IMPORTANT: Avoid side pressure on the auger. This can damage auger and drive components.

6. Periodically adjust the machine’s position to keep the auger and hole vertical. Be careful not to damage gearbox or auger.
7. Apply down pressure to assist penetration into the ground. If auger speed slows or stops, back off down pressure. Excessive down pressure can stall the auger.

IMPORTANT: Always stop auger from rotating before raising it out of the hole. This will keep the auger from wobbling with an unbalanced dirt load.

Do not reverse auger rotation when raising it up. This will dump soil back into the hole.

8. After penetrating the ground approximately 24", stop auger rotation and raise it up to remove soil and debris from the hole. Lower auger back down to continue digging. Dig another 24" and again raise auger up except this time keep auger turning to lessen the strain on the equipment. Stop raising auger within 1 to 2 feet of being out of the hole and lower it back down to continue digging. Repeat this procedure until hole is at its final depth.
9. Allow auger to turn several revolutions at final depth. With auger still turning, raise auger up to within 1 to 2 feet of being out of the hole. Stop auger rotation and continue to raise auger out of the hole.

IMPORTANT: Stop auger rotation immediately if it becomes stalled while digging. Some power machinery have a hydraulic relief valve to protect the equipment. This valve will open in a stalled situation and allow oil to bypass the hydraulic motor. Check your Operator’s Manual to see if your machine is equipped with a hydraulic relief valve.

IMPORTANT: If auger has screwed itself into the soil or hits a large obstruction and becomes stalled, then reverse auger rotation only enough to free it. Once free, continue normal digging operations by lowering the auger down slowly. If auger does not penetrate the obstruction, raise auger out of the hole and remove obstruction by other means or dig a new hole nearby.

It is best to leave drilling through hard rock to premium high pressure drilling equipment or other rock excavation methods.

10. Roll tilt arms into a low carry position when transporting from one digging site to the next. Be careful to watch out for people, obstructions and uneven terrain.

General Operation

By now you should have thoroughly read your Operator's Manual, properly installed your Post Hole Digger onto your machine and performed your pre-start and operational running checklist. If you plan to dig holes immediately, you should have also contacted your local utility companies to make sure it is safe to dig where you plan to work. If you haven't done all of the things just described above, please stop and do them now. This is a must for your safety and the safety of others.

Now that you are properly briefed, your SA35 Post Hole Digger is properly installed, and you have the proper digging authorization from the utility companies, it's time to transport to the work site. Make sure that the Post Hole Digger is in the raised position and not in contact with the ground. If you have an extensive distance to travel, you may want to secure the auger with ropes, slings, or chains to prevent swinging and potential damage in transport. Select a safe speed and transport to your digging site in such a manor that faster moving vehicles can pass you safely. A slow moving vehicle sign should be employed if you are using a public road or right-of way.

Once you have safely arrived at your digging site, position your Skid Steer/Tractor so that the auger is directly over the spot where you want to dig a hole. Make sure your operator protective shield or safety door is securely in place. Lower Skid Steer/Tractor arms and auger to a point where the auger clears the ground by approximately 12". Do not operate the digger when the auger is more than 12" above ground level or the auger could bind or swing erratically causing injury to the operator and damage to the equipment.

With the engine at idle, engage hydraulic circuit and raise engine rpm to operate between 10 and 25 GPM hydraulic flow to a point where the auger is turning at speeds a speed of approximately 85 to 100 rpm. Do not operate the auger at over 110 rpm or damage to the Post Hole Digger and Skid Steer/Tractor could result. Using the loader arm controls, lower the auger into the ground until the desired depth is achieved and then raise the spinning auger back up to remove extraneous soil. Once the hole is completed, disengage hydraulic drive circuit, raise auger to a point where the auger tip is approximately 12" off of the ground, release park brake and move away from the hole.

If an obstacle is encountered that stalls the auger while digging, reverse auger rotation and lift up to clear the obstacle.

Periodically adjust the machine's position to keep the auger and hole vertical. Be careful not to damage gearbox or auger.

Before dismounting your Skid Steer/Tractor; you must always set the park brake, lower your loaders arms and attachment to the ground, turn off the machine and remove the ignition key. If you must park on a hillside you should always chock the Skid Steer/Tractor wheels for an extra measure of safety.

With a little practice and experience you should become very good at operating your Land Pride SA35 Series Post Hole Digger.

See "Features and Benefits" section or "Product Specifications" for additional information on performance enhancing options.

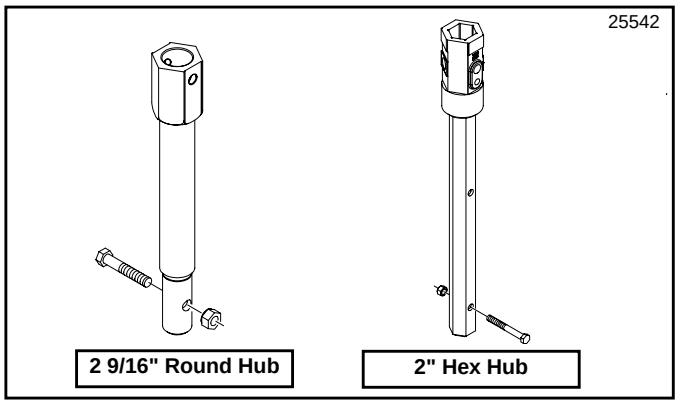
Auger Extension

Refer to Figure 3-1:

If desired hole depth cannot be achieved, an auger extension shaft can be purchased from your nearest Land Pride Dealer.

Land Pride Auger Extensions

Part No.	Part Description
317-133A	SA 24" X 2 9/16"OD AUGER EXT. ASY
317-135A	SA 48" X 2 9/16" OD AUGER EXT. ASY
317-129A	SA 24" X 2" HEX AUGER EXTEN. ASSY
317-131A	SA 48" X 2" HEX AUGER EXTEN. ASSY



Auger Extensions
Figure 3-1

Augers

Refer to Figure 3-2 & Figure 3-3:

Land Pride offers standard and tree augers with 2 9/16" dia. round hubs or 2" hex hubs with aggressive cutting teeth on both.

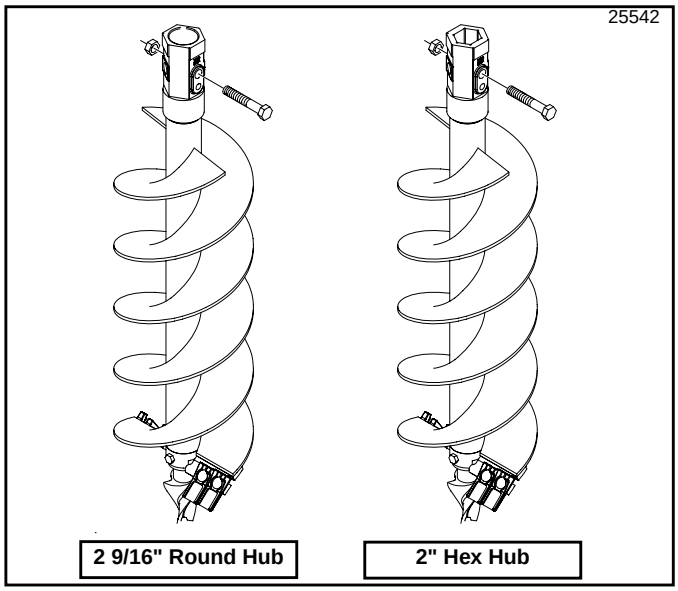
Tree augers are excellent for digging holes that are larger in diameter at the top and smaller at the bottom. This hole designed is good for planting bush, shrub and tree bulbs at soil level and allowing the root system to reach down underneath to collect needed nutrients.

Land Pride Standard Augers

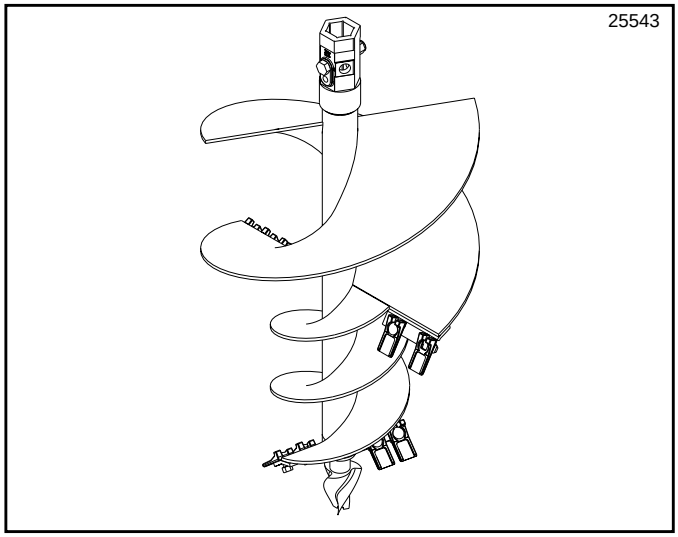
Part No.	Part Description
317-096A	SA 9" X 2 9/16" HUB DOUBLE AUGER
317-099A	SA 12" X 2 9/16" HUB DOUBLE AUGER
317-102A	SA 15" X 2 9/16" HUB DOUBLE AUGER
317-105A	SA 18" X 2 9/16" HUB DOUBLE AUGER
317-108A	SA 24" X 2 9/16" HUB DOUBLE AUGER
317-114A	SA 30" X 2 9/16" HUB DOUBLE AUGER
317-120A	SA 36" X 2 9/16" HUB DOUBLE AUGER
317-098A	SA 12" X 2" HEX HUB DOUBLE AUGER
317-095A	SA 9" X 2" HEX HUB DOUBLE AUGER
317-101A	SA 15" X 2" HEX HUB DOUBLE AUGER
317-104A	SA 18" X 2" HEX HUB DOUBLE AUGER
317-107A	SA 24" X 2" HEX HUB DOUBLE AUGER
317-113A	SA 30" X 2" HEX HUB DOUBLE AUGER
317-119A	SA 36" X 2" HEX HUB DOUBLE AUGER

Land Pride Tree Augers

Part No.	Part Description
317-111A	SA 24" X 2 9/16" HUB TREE AUGER
317-117A	SA 30" X 2 9/16" HUB TREE AUGER
317-123A	SA 36" X 2 9/16" HUB TREE AUGER
317-110A	SA 24" X 2" HEX HUB TREE AUGER
317-116A	SA 30" X 2" HEX HUB TREE AUGER
317-122A	SA 36" X 2" HEX HUB TREE AUGER



Standard Augers
Figure 3-2



Tree Augers (2" Hex hub shown)
Figure 3-3

Maintenance

General

Proper servicing and adjustment is the key to the long life of any implement. With careful inspection and routine maintenance, you can avoid costly down time and repair.

Read and obey all safety labels on the Skid Steer Auger. Securely block raised equipment before working under or around it. Do not allow anyone to operate or perform maintenance on this implement who has not been properly trained in its safe operation. Do not alter the equipment in a way which will adversely affect its performance or reliability, or for a purpose the product is not designed.

DANGER

Keep all persons away from rotating auger. Contact with rotating parts may cause serious injury or death. Keep all shields in place and secure when operating.

WARNING

Stop engine, engage parking brake, raise seat bar, move controls until both are locked and remove key to prevent unauthorized starting before performing maintenance on the auger. Use steps, grab-handles and skid-resistant surfaces when getting on or off the loader.

WARNING

Always secure Skid Steer Auger with solid supports before servicing. Never work under equipment supported by hydraulics. Hydraulics can drop equipment if controls are actuated or if hydraulic lines burst. Either situation can drop the auger instantly even when power is shut off.

WARNING

Keep all hardware properly torqued tight. Loose components and hardware can break sending flying pieces in the direction of the operator and others that may be close-by.

Daily Inspections

1. Inspect auger point and teeth for wear and loose fit. Keep cutting edges sharp. Sharp cutting edges dig easier and better.
2. Inspect flighting for wear, bend and cracks.
3. Inspect auger mounting hardware for wear, bend and loose fit.
4. Inspect all connecting pins and hardware for wear, bend and loose fit.
5. Inspect out put shaft for bend and wear.
6. Check gearbox fluid level periodically. If fluid is required refer to the *Gear Lube Fluid Level* lubrication illustration that follows.
7. Replace any worn, damaged or illegible safety labels by obtaining new labels from your Land Pride Dealer.

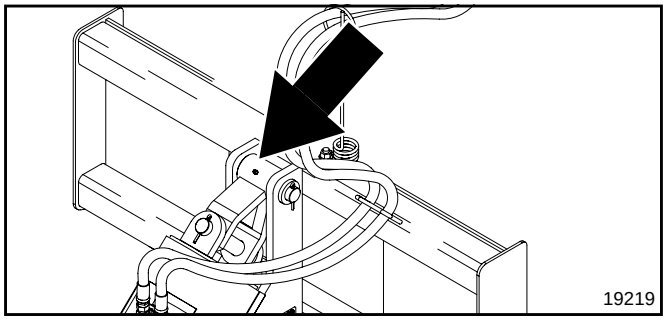
Storage

Clean, inspect, service and make necessary repairs to the Skid Steer Auger when parking it for long periods and when parking it at the end of a working season. This will help ensure the auger is ready for field use the next time you hook-up to it.

1. Clean off any dirt and grease that may have accumulated on the unit and moving parts. Scrape off compacted dirt and then wash surfaces thoroughly with a garden hose. A coating of oil may also be applied to the spiral flights to minimize oxidation.
2. Inspect unit for loose, damaged or worn parts and adjust or replace as needed.
3. Lubricate as noted on page 15.
4. Store unit on a level surface in a clean, dry place. Be sure unit is properly supported so as not to fall on any one during storage.
5. Repaint parts where paint is worn or scratched to prevent rust. Ask your dealer for Land Pride touch-up paint. They are available in aerosol spray cans, touch-up bottles, quarts and gallon sizes
6. Replace all damaged or missing decals.

Lubrication Points

Lubrication Legend	Multi-purpose spray lube	Multi-purpose grease lube	Multi-purpose oil lube	50 Intervals in hours at which lubrication is required

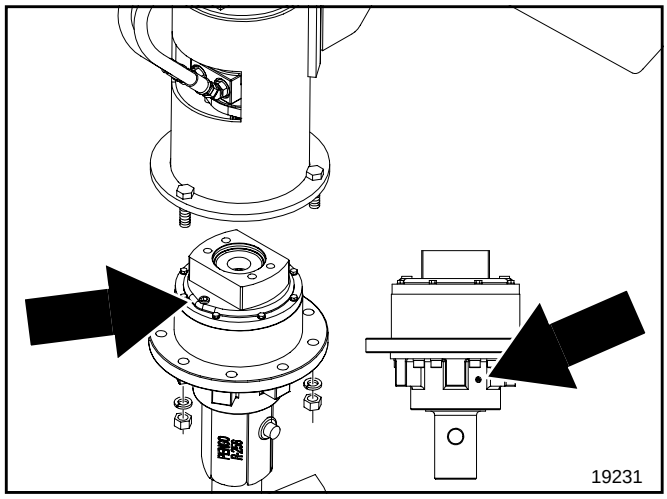


As Required

Auger Clevis Pivot

Type of Lubrication: Multi-purpose grease

Quantity = Light film



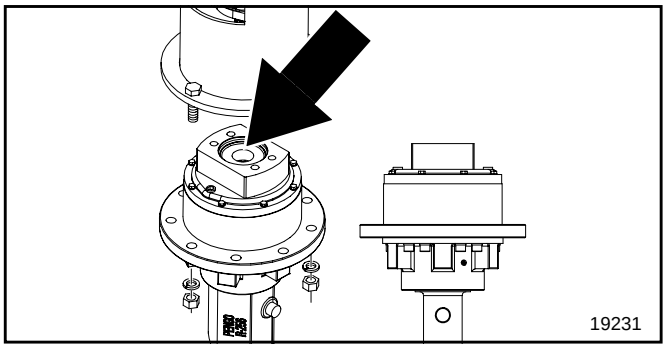
As Required

Gear Lube Fluid Level

The gearbox housing should be removed for checking or changing the gearbox oil as shown. Change oil after the first 50 hours of operation. Then every 1200 hours or 12 months whichever comes first.

NOTE: The gearbox is pre filled with oil at the factory.

Type of Lubrication: SAE 90W Multi-purpose Lube
Quantity = Check oil daily before use by removing plug from side of gearbox. If oil level is low remove top plug and fill with lube until fluid flows from side port. Do not overfill.

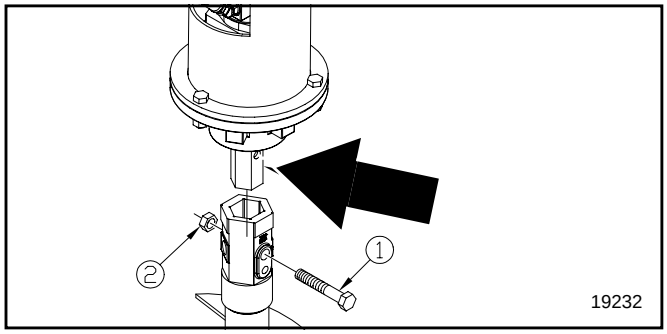


As Required

Gearbox Input Shafts

Type of Lubrication: Multi-purpose grease

Quantity = Light film



As Required

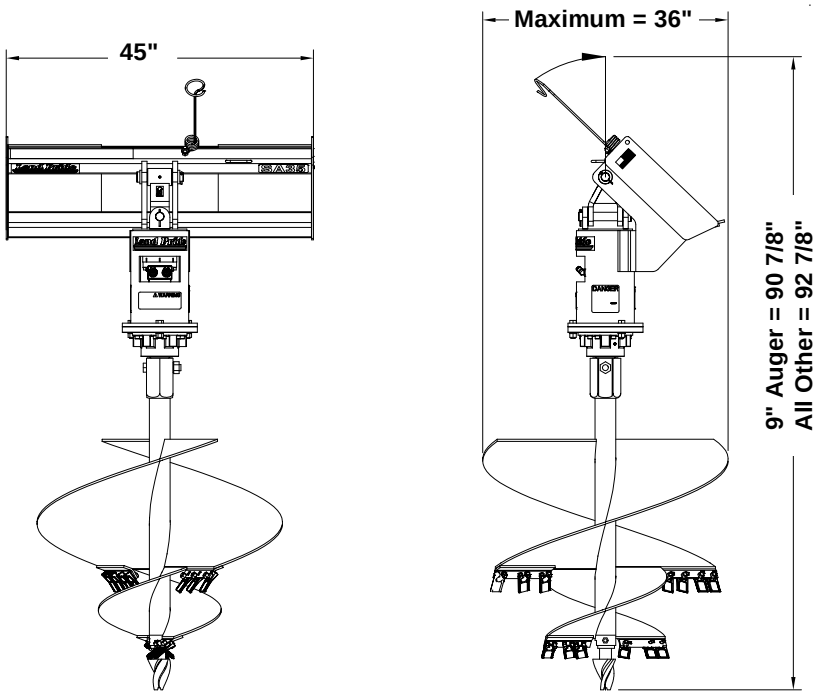
Gearbox Output Shaft

Type of Lubrication: Multi-purpose grease

Quantity = Light film

SA35 Model

Description	SA35			
Skid Steer Hydraulic	10 - 25 GPM @ 1500 to 3000 PSI			
Weight without Auger	435 lbs.			
Auger Length	9" Auger size = 46" All other auger sizes = 48"			
Auger Flighting Thickness	5/16”			
Auger Pipe	2 1/2" ID			
Auger Teeth	Forged, Individually Replaceable 40 Degree angle installed on flat side 50 Degree angle installed on angled side			
Number of Teeth	Standard Augers	9" & 12" - 4 teeth 15" - 5 teeth 18" - 6 teeth 24" - 8 teeth 30" - 10 teeth 36" - 12 teeth	Tree Augers	24" - 9 teeth 30" - 11 teeth 36" - 13 teeth
Pilot	Cast Steel, 3 -Drill Points			
Auger Drive	Hydraulic			
Gearbox	18 GPM (Gallons Per Minute) Hydraulically driven planetary gearbox; reversible			
Output Shaft	2" Hex or 2 9/16" O.D. round			
Hitch	Skid Steer Mounting Plate			
Options and Accessories				
Auger sizes (Options).	Standard: 9", 12”, 15”, 18”, 24”, 30” and 36” / Tree: 24”, 30” and 36”			
Gearbox Output Shafts (Options)	2" Hex or 2 9/16" OD round			
Auger Extensions (Accessories)	2" Hex extension: 24" & 48" Extensions Available		2 9/16" OD round extension: 24" & 48" Extensions Available	



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SA35 Model

Features	Benefits
Universal Fit	Fits most Skid Steers
Maneuverability	Skid Steer Post Hole Diggers are able to reach over fences or other obstructions.
Replaceable hardened steel points on auger	Hardened points will last longer than non-hardened. Points are replaceable. Fish tail tips and steel point make it easier to start a hole.
35 Series	For 10 – 25 GPM hydraulic systems.
Output shaft options	2” Hex shaped output shaft, or 2 9/16” shaft. Both offer high torque resistance, with the hex shaft being the heaviest available.
Planetary gearbox	Design is a tougher, more construction grade than chain and sprocket designed gearboxes. Boxes are completely sealed with all moving parts running in oil for constant lubrication.
5 Year gearbox warranty on housings, gears & shafts	Shows our confidence in the gearbox integrity.
Auger sizes	9”, 12”, 15”, 18”, 24”, 30”, or 36” augers
Auger length	46” on 9” Auger, 48” on all others.

Troubleshooting Chart

Problem	Cause	Solution
Auger will not dig	Teeth are dull.	Sharpen or replace teeth.
	Auger is turning too fast and bouncing.	Reduce engine speed. Do not exceed 300 RPM.
	Auger is encountering rocks, roots, or other obstructions.	Lift auger from hole and remove obstruction or change location.
	Skid Steer/Tractor is not positioned properly.	Reposition Skid Steer/Tractor.
Auger digs so far, but will not dig deeper	Soil could have hardpan layer below surface.	Use Skid Steer to push auger into ground. May Need to use an extension.
Auger is bent and/or auger flighting is bent	Skid Steer/Tractor moved on its own while auger was in the hole.	Always make sure gear selector is in neutral or park and brakes are set.
	Operator moved Skid Steer/Tractor excessively with auger in hole to try to straighten hole being dug at an angle.	Be careful not to damage gearbox or auger when moving. While digging, move Skid Steer/Tractor in small increments to keep the hole straight.
	Auger is encountering rocks, roots, or other obstructions.	Lift auger from hole and remove obstruction or change location.
Excessive oil heating	Flow in hydraulic line is restricted due to dirt particles in fittings and twisted hydraulic hoses.	Remove dirt particles in fittings and untwist hydraulic hoses that maybe pinched or kinked.
	Defective or mismatched coupler.	Replace with proper couplers.
	Hydraulic fluid is dirty.	Replace hydraulic fluid and filter.
	Insufficient quantity of hydraulic fluid.	Fill reservoir to proper level. Increase reservoir storage capacity.
	Digging load is excessive.	Reduce load to within machine specifications.
Gearbox is damaged	No oil in Gearbox.	Check oil level in gearbox per instructions.
	Oil not changed per instructions.	Change oil per instructions.
Jerky operation	Cold oil or air in hydraulic lines.	Allow time for the hydraulic oil to warm up.
	Hydraulic system not working properly.	See Skid Steer/Tractor Operator's Manual.
Insufficient digging power	Excessive wear of auger teeth or point.	Replace auger teeth or point.
	Low system pressure. (PSI)	Check system with pressure gauge. If low, investigate cause.
	Relief valve is damaged or is set wrong.	Refer to Skid Steer/Tractor or Operator's Manual.
	Excessive digging load.	Reduce load to within machine specifications.
Hydraulic Oil leaks	Loose or damaged hoses.	Tighten or replace hydraulic hoses.
	Loose or damaged fittings.	Tighten or replace hydraulic fittings.
	Hydraulic motor seals and gaskets are worn or damaged.	See Dealer for repair.
Auger turns in reverse direction	Hydraulic hoses are reversed.	Re-install hoses correctly.
Auger speed is slow	Low hydraulic flow through the system.	Check with flow meter. If low, investigate and correct.
	Flow in hydraulic line is restricted due to dirt particles in fittings and twisted hydraulic hoses.	Remove dirt particles in fittings and untwist hydraulic hoses that maybe pinched or kinked.
	Defective or mismatched couplers.	Replace with proper couplers.
	Fittings and/or connections are too small.	Replace with proper size fittings and/or connections.
	Dirty oil filter.	Replace oil filter.
	Worn or damaged hydraulic pump.	See dealer for repair
	Excessive wear of auger teeth or point.	Replace auger teeth and/or point.

Torque Values Chart

Bolt Size (Inches)	Bolt Head Identification Grade 2		Grade 5		Grade 8	
in-tpi [1]	N·m [2]	ft-lb [3]	N·m	ft-lb	N·m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12
1/4" - 28	8.5	6	13	10	18	14
5/16" - 18	15	11	24	17	33	25
5/16" - 24	17	13	26	19	37	27
3/8" - 16	27	20	42	31	59	44
3/8" - 24	31	22	47	35	67	49
7/16" - 14	43	32	67	49	95	70
7/16" - 20	49	36	75	55	105	78
1/2" - 13	66	49	105	76	145	105
1/2" - 20	75	55	115	85	165	120
9/16" - 12	95	70	150	110	210	155
9/16" - 18	105	79	165	120	235	170
5/8" - 11	130	97	205	150	285	210
5/8" - 18	150	110	230	170	325	240
3/4" - 10	235	170	360	265	510	375
3/4" - 16	260	190	405	295	570	420
7/8" - 9	225	165	585	430	820	605
7/8" - 14	250	185	640	475	905	670
1" - 8	340	250	875	645	1230	910
1" - 12	370	275	955	705	1350	995
1-1/8" - 7	480	355	1080	795	1750	1290
1 1/8" - 12	540	395	1210	890	1960	1440
1 1/4" - 7	680	500	1520	1120	2460	1820
1 1/4" - 12	750	555	1680	1240	2730	2010
1 3/8" - 6	890	655	1990	1470	3230	2380
1 3/8" - 12	1010	745	2270	1670	3680	2710
1 1/2" - 6	1180	870	2640	1950	4290	3160
1 1/2" - 12	1330	980	2970	2190	4820	3560

Bolt Size (Metric)	Bolt Head Identification 5.8 Class 5.8		8.8 Class 8.8		10.9 Class 10.9	
mm x pitch [4]	N·m	ft-lb	N·m	ft-lb	N·m	ft-lb
M 5 X 0.8	4	3	6	5	9	7
M 6 X 1	7	5	11	8	15	11
M 8 X 1.25	17	12	26	19	36	27
M 8 X 1	18	13	28	21	39	29
M10 X 1.5	33	24	52	39	72	53
M10 X 0.75	39	29	61	45	85	62
M12 X 1.75	58	42	91	67	125	93
M12 X 1.5	60	44	95	70	130	97
M12 X 1	90	66	105	77	145	105
M14 X 2	92	68	145	105	200	150
M14 X 1.5	99	73	155	115	l215	160
M16 X 2	145	105	225	165	315	230
M16 X 1.5	155	115	240	180	335	245
M18 X 2.5	195	145	310	230	405	300
M18 X 1.5	220	165	350	260	485	355
M20 X 2.5	280	205	440	325	610	450
M20 X 1.5	310	230	650	480	900	665
M24 X 3	480	355	760	560	1050	780
M24 X 2	525	390	830	610	1150	845
M30 X 3.5	960	705	1510	1120	2100	1550
M30 X 2	1060	785	1680	1240	2320	1710
M36 X 3.5	1730	1270	2650	1950	3660	2700
M36 X 2	1880	1380	2960	2190	4100	3220

[1] in-tpi = nominal thread diameter in inches-threads per inch

[2] N· m = newton-meters

[3] ft-lb= foot pounds

[4] mm x pitch = nominal thread diameter in millimeters x thread pitch

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

Notes

Warranty

Land Pride warrants to the original purchaser that this Land Pride product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule when used as intended and under normal service and conditions for personal use.

Overall Frame: One year Parts and Labor

Auger: One year (Somewhat considered a wear item).

Gearbox: 5 years Parts and Labor.

Hydraulic Motor: 5 years Parts and Labor.

This Warranty is limited to the replacement of any defective part by Land Pride and the installation by the dealer of any such replacement part, and does not cover common wear items. Land Pride reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Land Pride's judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and driveline shafts.

Claims under this Warranty should be made to the dealer which originally sold the product and all warranty adjustments must be made through an authorized Land Pride dealer. Land Pride reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty shall not be interpreted to render Land Pride liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, Land Pride shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

This Warranty is not valid unless registered with Land Pride within 30 days from the date of purchase by the end user.

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